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CPC	G01F 3/10 (2013.01); G01F 15/00 (2013.01); F04C 2220/24 (2013.01); G01F 1/661 (2013.01); G06M 1/272 (2013.01)
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(58) **Field of Classification Search**

CPC	F04C 2220/24 ; G01F 1/661 ; G01F 3/10 ; G06M 1/272
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See application file for complete search history.

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(57) **ABSTRACT**

Embodiments include a flow measuring system for measuring characteristics of a fluid flow. The flow measuring system can include a pair of rotating members rotating synchronously to the fluid flow. At least one rotating member can include a normally-reflecting portion and a non-normally reflecting portion. The normally-reflecting portion reflects an incident beam in a direction parallel to the normal direction of the plane of the normally-reflecting portion. The non-normally reflecting portion reflects the incident beam in a direction non-parallel to the normal direction of the plane of the normally-reflecting portion. The flow measuring system measures the optical characteristics of a beam reflected by the normally-reflecting portion and determines rotational characteristics of the rotating member. The flow measuring system determines characteristics of the flow based on the rotational characteristics of the rotating member.

24 Claims, 7 Drawing Sheets